

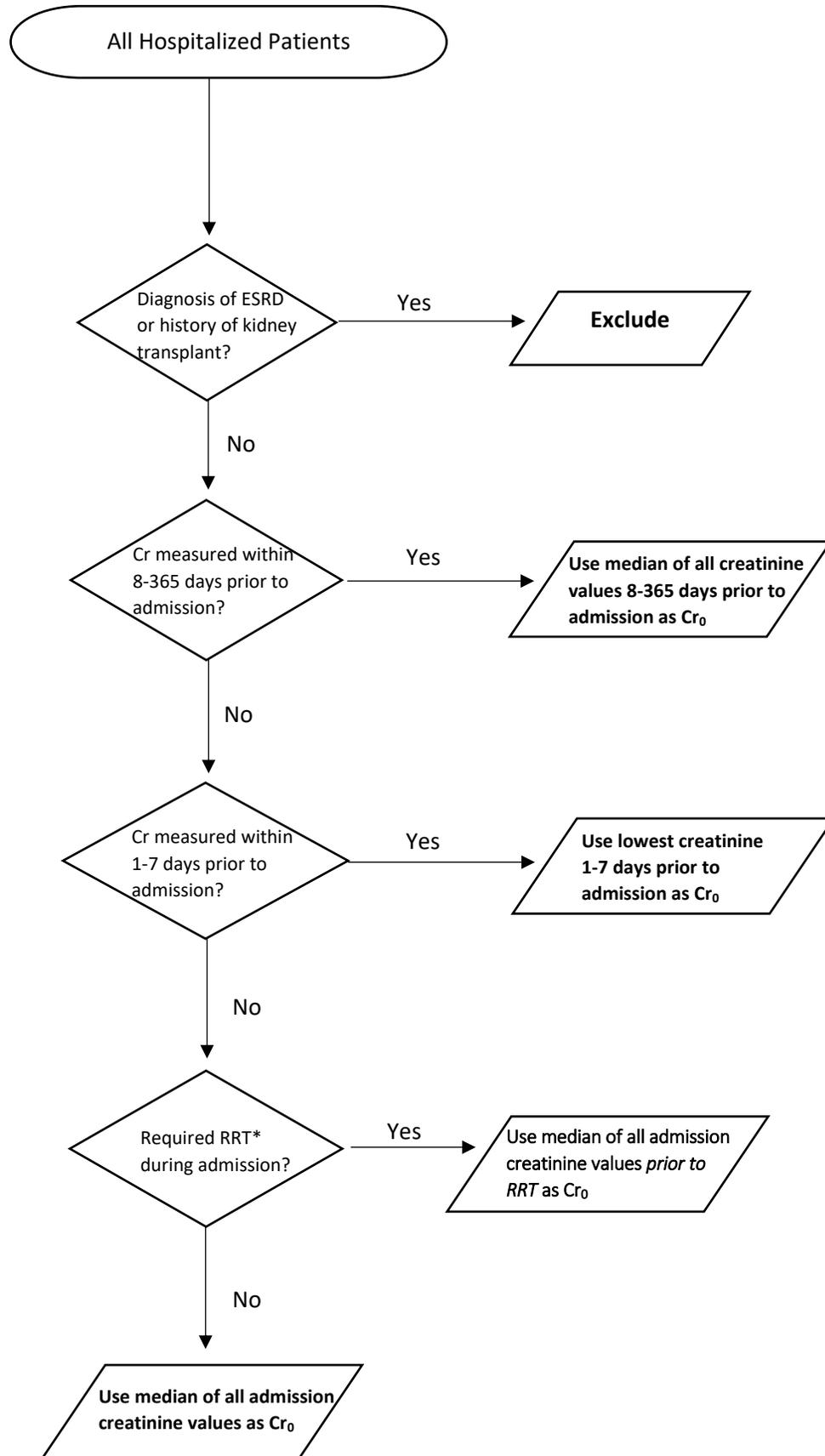
Supplemental Material Table of Contents

Supplemental Figure 1. Algorithm to determine baseline creatinine.

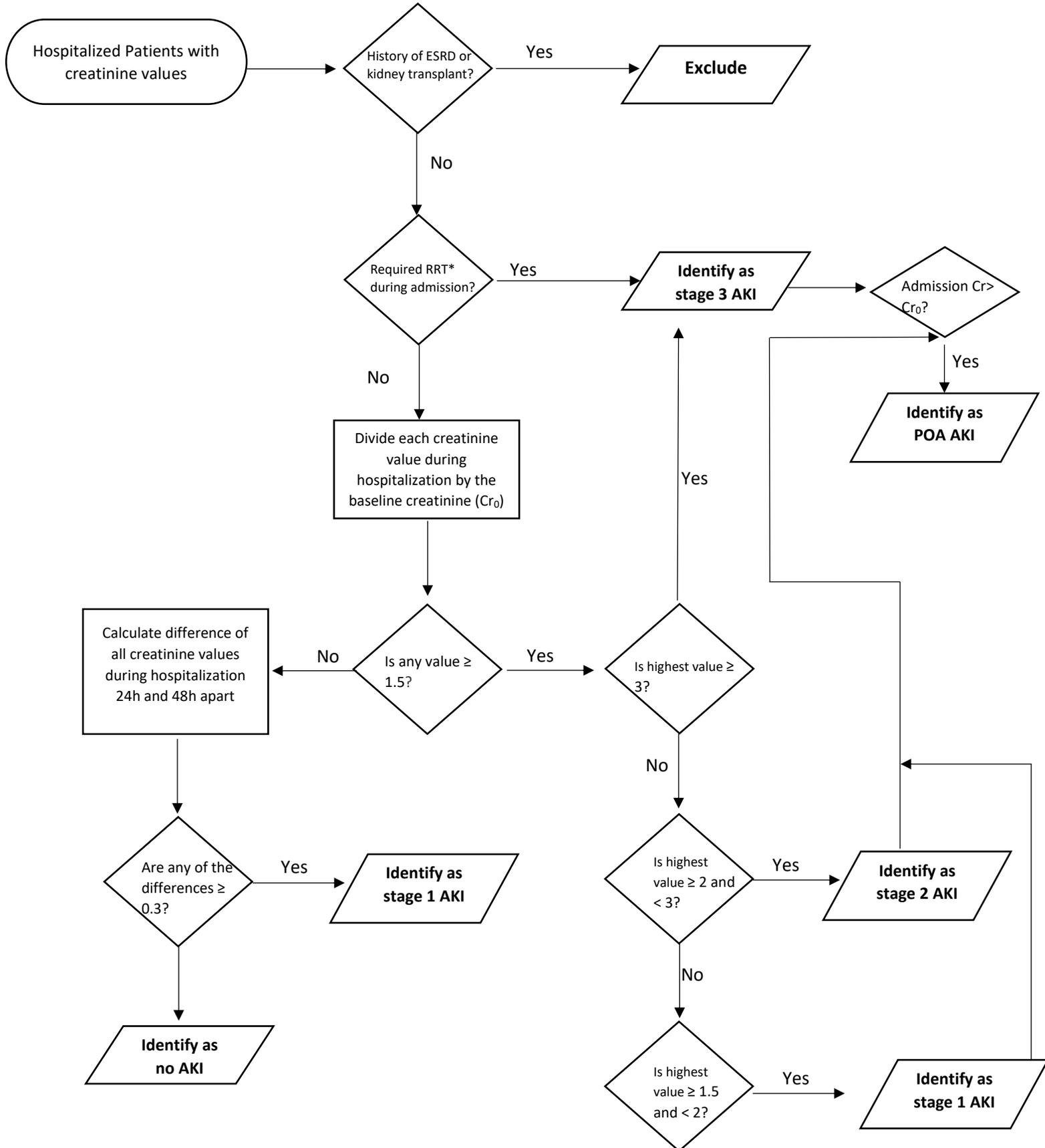
Supplemental Figure 2. Algorithm to determine presence of AKI as well as stage of AKI and present on admission (POA) AKI.

Supplemental Table 1. Performance of predictive models for AKI and RRT.

Supplemental Figure 1. Algorithm for determination of baseline creatinine (Cr_0). Cr refers to creatinine value. ESRD, end stage renal disease. Cr, creatinine. *Renal replacement therapy (RRT) includes continuous renal replacement therapy (CRRT), hemodialysis (HD), or peritoneal dialysis (PD).



Supplemental Figure 2. Algorithm to determine presence and stage of AKI as well as presence of AKI on admission (POA AKI). *Renal replacement therapy (RRT) includes continuous renal replacement therapy (CRRT), hemodialysis (HD), or peritoneal dialysis (PD). ESRD, end stage renal disease. Cr, creatinine. Cr₀, baseline creatinine.



Supplemental Table 1. Performance of predictive models for AKI and RRT.

| AKI | | | | |
|------------------------------|----------------|----------------|----------------|----------------|
| Metric, mean ±SEM | Model 1 | Model 2 | Model 3 | Model 4 |
| AUC | 0.642±0.014 | 0.726±0.008 | 0.844±0.008 | 0.842±0.007 |
| Sensitivity | 0.563±0.042 | 0.659±0.031 | 0.754±0.027 | 0.749±0.024 |
| Specificity | 0.684±0.032 | 0.728±0.025 | 0.812±0.017 | 0.812±0.016 |
| PPV | 0.227±0.01 | 0.286±0.011 | 0.404±0.019 | 0.4±0.016 |
| NPV | 0.908±0.005 | 0.931±0.004 | 0.954±0.004 | 0.953±0.004 |
| PLR | 1.842±0.104 | 2.512±0.13 | 4.303±0.348 | 4.213±0.293 |
| NLR | 0.63±0.038 | 0.462±0.031 | 0.299±0.028 | 0.306±0.025 |
| RRT | | | | |
| Metric, mean ±SEM | Model 1 | Model 2 | Model 3 | Model 4 |
| AUC | 0.711±0.019 | 0.776±0.015 | 0.832±0.02 | 0.83±0.02 |
| Sensitivity | 0.771±0.047 | 0.732±0.039 | 0.752±0.037 | 0.751±0.046 |
| Specificity | 0.609±0.046 | 0.747±0.054 | 0.839±0.042 | 0.819±0.032 |
| PPV | 0.053±0.005 | 0.086±0.01 | 0.151±0.027 | 0.117±0.016 |
| NPV | 0.991±0.001 | 0.991±0.001 | 0.993±0.001 | 0.993±0.001 |
| PLR | 2.186±0.216 | 3.715±0.473 | 7.446±1.67 | 5.299±0.833 |
| NLR | 0.352±0.057 | 0.342±0.035 | 0.29±0.035 | 0.293±0.05 |

AKI, acute kidney injury. RRT, renal replacement therapy.

Model 1 includes level of proteinuria and hematuria, Model 2 includes Model 1 plus presence of CKD, Model 3 includes Model 1 plus baseline creatinine, and Model 4 includes Model 1 plus presence of CKD and baseline creatinine.

SEM, standard error of the mean. AUC, area under the curve. PPV, positive predictive value. NPV, negative predictive value. PLR, positive likelihood ratio. NLR, negative likelihood ratio.